

## The first record of *Norellia tipularia* (Fabricius, 1794) (Diptera: Scathophagidae) for the fauna of Russia

### Первая регистрация вида *Norellia tipularia* (Fabricius, 1794) (Diptera: Scathophagidae) в фауне России

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КЛЮЧЕВЫЕ СЛОВА: Diptera, Scathophagidae, *Norellia*, *Norellia tipularia*, фауна, Россия, первая регистрация.

**ABSTRACT.** The genus *Norellia* Robineau-Desvoidy with the species *Norellia tipularia* (Fabricius, 1794) is recorded from Russia for the first time. Diagnosis for the genus *Norellia* and the description of *Norellia tipularia* are given.

**РЕЗЮМЕ.** Род *Norellia* Robineau-Desvoidy с видом *Norellia tipularia* (Fabricius, 1794) впервые отмечен на территории России. Приведены диагноз рода *Norellia* и описание *N. tipularia*.

#### Introduction

The genus *Norellia* Robineau-Desvoidy, 1830 at the present time includes 3 species: *Norellia tipularia* (Fabricius, 1794), *Norellia spinipes* (Meigen, 1826) and *Norellia megistomycta* Feng, 2006 [Šifner, 2008].

Some of dipterologists, for example Vockeroth [1965], Gorodkov [1986, 1970], Ozerov [1993, 2008] included the species of the genus *Norellisoma* Wahl-gren, 1917 in this genus also. The differences between the genera *Norellia* and *Norellisoma* are the next. In *Norellia* frons with 1 pair of orbital (*or*) setae; postocellar setae (*poc*) absent; scutellum with a pair of strong apical setae, discal scutellar setae absent (Fig. 3); forefemur with one row of long posteroventral (*pv*) setae only (Fig. 1), row of anteroventral (*av*) setae absent; vein  $A_1 + CuA_2$  not reaching wing margin significantly, female abdominal sternite 8 without spines (Fig. 10). In *Norellisoma* frons with 2 pairs of orbital (*or*) setae; postocellar setae (*poc*) present; scutellum with pair of strong discal setae, apical scutellar setae absent or hair-like (Fig. 4); forefemur with rows of long posteroventral (*pv*) and anteroventral (*av*) setae (Fig. 2); vein  $A_1 + CuA_2$  reach-

ing wing margin at least as a fold, female abdominal sternite 8 with numerous short spines (Fig. 11).

*Norellia tipularia* (Fabricius, 1794) and *Norellia spinipes* (Meigen, 1826) were registered in west Palaearctic. The differences between these two species were discussed by De Jong [1985]. *Norellia megistomycta* was described from China.

Larvae of the representatives of this genus develop in plants of the family Amaryllidaceae: *N. tipularia* in *Leucojum* spp., *N. spinipes* in *Narcissus* spp. [De Jong, 1985].

None of the species has been registered in the fauna of Russia up to now.

The present publication contains the diagnosis of the genus *Norellia* and the description of *N. tipularia*, which is registered for the first time for Russia herein from female specimen caught in the neighborhood of Naro-Fominsk (Moscovskaya Oblast'). Illustrations of the structure of male legs and genitalia were made from additional material got from Israel.

#### *Norellia* Robineau-Desvoidy, 1830

*Norellia* Robineau-Desvoidy, 1830: 673. Gender: feminine. Type-species: *Norellia pseudonarcissi* Robineau-Desvoidy, 1830: 673, by monotypy [= *Cordylura spinipes* Meigen, 1826].

*Achantholena* Rondani, 1856: 101. Gender: feminine. Type-species: *Achantholena maculipennis* Rondani, 1856: 101, by original designation [= *Cordylura spinipes* Meigen, 1826].

**DIAGNOSIS.** Proepisternum covered with setulae at middle. Postocellar setae (*poc*) absent. Tibia of forelegs of both sexes with row of strong posteroventral setae (*pv*). Anepisternum covered with setulae usually along dorsal margin and in posterior part only, without setulae posterior to anterior spiracle. Scutellum with one pair of apical setae.

## Taxonomic part

### *Norellia tipularia* (Fabricius, 1794)

Figs 1, 3, 5–10.

*Musca tipularia* Fabricius, 1794: 337.

MATERIAL. 1 ♀, RUSSIA: Moscovskaya Oblast', Ozhigovo (55.453338°N, 36.884709°E), 22.VII.2010, D. Gavruyshin (ZMUM).

ADDITIONAL MATERIAL. 2 ♂♂, ISRAEL: Mt. Hermon, 1600 m, 2.VII.1986 and 7.VII.1986, A. Freidberg and F. Kaplan; 1 ♀, Upper Nahal 'Ammud [Upper N. Amud], 28.V.1981, F. Kaplan (TAU).

DESCRIPTION. Male and female. Length of body 7.1–7.8 mm. Length of wing 6.1–6.2 mm.

**Head.** Frons yellow, with whitish microtrichia along margin of eye. Ocellar triangle blackish. Face, parafacial and gena yellow, with whitish microtrichia. Postcranium black in upper half (with black setae and setulae) and yellowish in lower half (with yellow setae and hairs). 1 orbital, 2–3 frontals, 1 ocellar, 1 inner vertical, 1 outer vertical (approximately 1/3 times as long as inner vertical) setae present; postocellar setae absent; 1 pair of strong vibrissa and 1 pair of short subvibrissa. Antenna yellow. First flagellomere rounded apically, approximately 2.5 times as long as wide. Arista black, sometimes yellow basally, with short rays; longest rays not longer than greatest diameter of arista. Palpus, clypeus and proboscis yellow.

**Thorax.** Scutum black, grey microtrichose, with yellow median stripe between dorsocentral setae along entire scutum and with lateral yellow stripe posterior to transverse suture; postpronotal lobe yellow in ventral half. Pleura mostly yellow, only anatergite and mediotergite black. Scutum with following black setae: 1 notopleural, 0+1 supra-alars, 1 postalar, and 0+1 dorsocentral; anterior margin of scutum with a pair of forward directed setae; acrosticals, postpronotals and intra-alar setae absent. Proepisternum with yellow setulae and 1 blackish or yellow seta near ventral margin. Proepimeron with several yellow hairs ventral to spiracle. Anepisternum rarely with hairs in posterior half and 1 seta near posterodorsal corner. Katepisternum with 1 seta in posterodorsal corner. Anepimeron bare. Scutellum with 1 (pair) of strong apical seta.

**Legs** entirely yellow. Forefemur with row of 6–7 long *pv*, row of 8–10 short *av*, and usually with 1 apical *pd* setae. Foretibia with 4 long *pv* setae, 1 hair-like *d* and 1 *pd* in basal half, and with 1 hair-like apical *d*. Midfemur with 2–3 thin *a* in basal half, 3–4 spine-like *pv* and 5–6 spine-like *av* in apical half, and with 1 apical *pd*. Midtibia without striking setae, except *av*, *pv* and *d* apicals. Hindfemur with 1 *ad* in basal half, 2–

3 spine-like *pv* and 4–5 spine-like *av* in apical half, and with 1 apical *ad*. Hindtibia with 2 thin *ad*, 1 *pd*, 1 preapical *d*, and 1 each of *ad* and *av* apical setae.

**Wing** tinged with brownish, veins brownish; cross-veins *r–m* and *dm–cu*, veins  $R_{2+3}$ ,  $R_{4+5}$ , *M* apically darkened. Vein  $A_1+CuA_2$  not reaching wing margin. Calypters, including margins, and halteres yellowish.

**Abdomen** shining. Tergites 1–5 black in center and yellow laterally, the rest mostly yellow. Syntergite 1+2 with 1–2 long yellowish setae laterally. Male sternites 4 and 5 as in Figs 7, 8. Epandrium, cerci and surstyli as in Figs 5, 6. End of female abdomen as in Figs. 9, 10; tergite 7 separate dorsally, sternite 8 without spines (Fig. 10).

**DISTRIBUTION.** France, Germany, Hungary, Italy, former Yugoslavia, Greece and Cyprus [De Jong, 1985], Israel; **Russia** (Moscovskaya Oblast') — **first record**.

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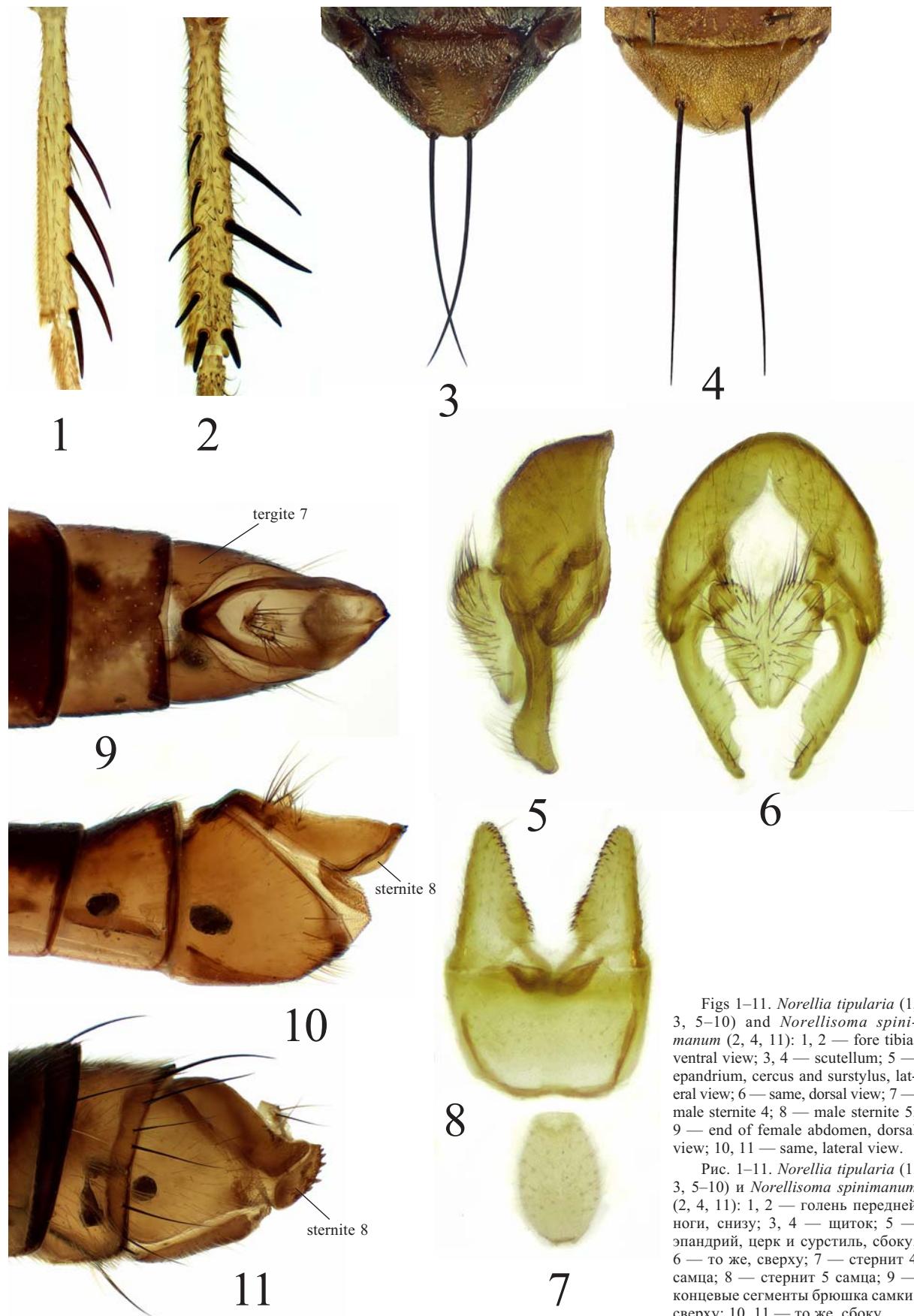
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Figs 1–11. *Norellia tipularia* (1, 3, 5–10) and *Norellisoma spinimanum* (2, 4, 11): 1, 2 — fore tibia, ventral view; 3, 4 — scutellum; 5 — epandrium, cercus and surstyli, lateral view; 6 — same, dorsal view; 7 — male sternite 4; 8 — male sternite 5; 9 — end of female abdomen, dorsal view; 10, 11 — same, lateral view.

Рис. 1–11. *Norellia tipularia* (1, 3, 5–10) и *Norellisoma spinimanum* (2, 4, 11): 1, 2 — голень передней ноги, снизу; 3, 4 — щиток; 5 — эпандрий, церк и сурстиль, сбоку; 6 — то же, сверху; 7 — стернит 4 самца; 8 — стернит 5 самца; 9 — концевые сегменты брюшка самки, сверху; 10, 11 — то же, сбоку.